COMMERCIAL SURFACE

REQUEST FOR AUTHORISATION OF VARIATION TO A TRANSACTION

SUBJECT	New Routemaster – Additional 195 vehicles	**Date** 26/02/2016
Originating Department: London Bus Services Limited		

Supplier Name:	Wrightbus Limited
Original Transaction Value:	£293,661,794 (8 pre-production buses, 600 production buses and 200 additional buses from a subsequent variation)
Original Approval given by:	TfL Board
Value of this Variation	**£62,205,000**
New Proposed Total Value	£355,866,794

1 Summary

This paper seeks the approval of a variation to supply an additional 195 New Routemaster (NRM) buses as Final Production Vehicles, taking the total quantity of NRM's ordered to 1,000.

2 Background

2.1 Wrightbus Limited (Wrightbus) was awarded a contract on 23 December 2009 to supply up to 1,000 NRM buses (including initial prototypes), following a competitive process.

2.2 Following the introduction of eight trial NRMs into service in 2012, in September 2012 TfL agreed to purchase an additional 600 NRMs, with the final bus due to be delivered by March 2016.

2.3 The purchase of an additional 200 NRMs for delivery into passenger service by the end of April 2016 (subsequently amended to end July 2016) was approved by the TfL Board on 05 November 2014, taking the total to 808.

2.4 The purchase of a further 195 NRM buses for delivery into passenger service by January 2018 was approved by the TfL Board on 03 February 2016. The paper presented to the Board is attached as Appendix 1.

2.5 A non-binding Memorandum of Understanding (MOU) setting out the key points of the agreement to supply the buses was signed with Wrightbus in February 2016 and is attached as Appendix 2.

2.6 This proposed variation reflects the terms of the MOU and subsequent discussions, the key elements of which are outlined below.

3 Proposed Variation

3.1 The variation implements the decision of the TfL Board to procure 195 NRM buses as final production vehicles for passenger service by January 2018, taking the NRM fleet size to 1000 (refer to points 16-18 of the attached MOU for further details of the quantities that make up 1000 vehicles).

3.2 The Purchase Order Quantity will be raised for 195 NRM buses which will not be subject to any pre-agreed or pre priced adjustments in quantities.
Note: the clause within the previous variations for amending the quantity to accommodate London Buses Services Limited's (LBSL) route conversion programme does not apply to this variation.

3.3 There is an option within the contract to terminate the variation in whole or in part by issuing Wrightbus a sixty (60) business days' notice period. If this were to be exercised, LBSL would pay certain costs that Wrightbus have incurred and which cannot be avoided, these costs would be agreed on an open book basis.

3.4 The proposed variation incorporates updates to various technical issues and improvements and includes the changes agreed in Contract Change Notices (CCN) numbered CCN1 through to CCN18.

3.5 The delivery programme in the MOU provides for deliveries to be complete in July 2017. This can be amended at request of either party subject to agreement and issue of a CCN.

3.6 Model of Ownership - It has been described to the Board that the nature and circumstances of this purchase mean that a direct purchase by LBSL of these buses will offer better value for money than purchase by bus operators; nothing has changed to alter that recommendation and the variation is drafted on the basis that LBSL will own the vehicles and they will be leased to operators.

4 Key Details

3.7 In giving its approval, the Board delegated to; The Commissioner, Managing Director Finance, Managing Director Surface Transport, General Counsel; and subsidiaries of TfL including Transport Trading Limited and any other subsidiary (whether existing presently or to be formed) of Transport Trading Limited and any of the directors of the relevant company shall be authorised to act for and on behalf of that company.

4.1. <u>Intellectual Property</u>
On the delivery of the 1000th vehicle, Wrights will grant LBSL a non-exclusive, royalty free irrevocable worldwide licence for the foreground Intellectual Property (IP) of the NRM buses, including access to technical drawings and associated tooling. This will give the option for LBSL to appoint a third party to manufacture additional vehicles.

4.2. Timing of Orders
The Contract Variation contains the manufacturer's revised production programme and, while regard must be had to it, the primary driver in setting the time for delivery will be based on the timetable for route conversion which will be for LBSL to advise.

4.3. Price
LBSL and Wrightbus have agreed on a price of £319,000 for each NRM for this variation. This has generated a reduction of £30,500 for each NRM compared to the order placed in November 2014 for 200 additional NRMs; equating to a saving of £5.95m.

Actual payments under the proposed variation are:

4.4.1. LBSL will pay £255,200 for each NRM at the point at which such bus has been produced, successfully inspected and is fully ready for delivery.

4.4.2. A final payment of £63,800 will be made for each NRM upon delivery, having met the Production tests and having been issued with an unqualified Production Vehicle Inspection Report.

4.4. In addition to this saving, Wrightbus have agreed to reduce the last 100 NRMs from the additional 200 order placed in November 2014, by £3,000 per bus equating to a further saving of £300,000.

5 Key Contractual Changes
Key changes to the existing contract terms in the proposed contract variation for this order of 195 NRM buses are as follows:

5.1. The Final Production Vehicles will be fitted with nine sliding windows (six on the upper deck and three on the lower deck).A separate CCN will be issued to incorporate this change into the 805 vehicles not covered by this variation .

5.2. The Final Production Vehicles shall include the installation of appropriately located wiring for fitment of "foot well cameras" and the option for supply and fitting of such cameras with the ability to collect video images and data through a clear view of the pedal area (including the driver's feet).

5.3. The initial 30 Final Production Vehicles are to be supplied as Standard length NRM. Further quantities of Final Production Vehicles may be ordered by LBSL as either standard length NRM or short length NRM. The price for any short length vehicles is to be agreed following notification of likely volumes. The MOU reflects the expectation of a small price reduction based on reduced components e.g. seats.

5.4. Warranties have been increased such that for those elements of the vehicles that have previously had two (2) year warranty the final 195

will have a Three (3) year warranty (excluding the batteries).

5.5. Wrightbus will supply and fit replacement batteries for all 1,000 NRM vehicles to LBSL and bus operators on the basis of cost price to

Wrightbus plus 12.5% (to cover ordering storage and fitting). The pricing of the batteries will be on an open book basis.

5.6. The price for the first 500 battery replacements will be capped at a maximum price of £20,000. The maximum price for additional battery replacements for quantities from 501 to 2,000 will be capped at £25,000

6 Impact on Funds

The budget was approved at TfL Board on 03 February 2016.
WBS code: SP.2475.001

7 Recommendation

It is recommended that the contract variation for 195 NRM buses as Final Production Vehicles, authorised by the TfL Board, as detailed in the MOU and this document is approved as permitted in the approvals given by the TfL Board, for execution by affixing the LBSL seal.

8 Next Steps

Following approval of the recommendation:

8.1 The contract variation and restated Contract documents will be sealed on behalf of LBSL and Wrightbus.
8.2 Shopping carts to authorise the purchase of 195 NRM will be created in SAP for approval by the Commissioner.
8.3 The project team will create the Purchase Orders which will be released by the Procurement Application Team.

9 Signature and Approval

Approved By (*Appropriate Delegated Officer with Financial Authority*)

Name	Signature	Date	Title
Mike Weston	[redacted]	26/02/2016	Director of Buses
Leon Daniels		29/2/16	Managing Director Surface Transport

Appendix 1 Board Papers

Board

Date: **3 February 2016**

Item: **New Routemasters**

TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

This paper will be considered in public

1 Summary

1.1 The Board is asked to approve additional unbudgeted Financial, Project and Procurement Authority for the purchase of up to 195 additional New Routemaster (NRM) buses. This is an increase to the current project scope. Authority is also sought for iBus and ticketing equipment, and normal mid-life refurbishment and related matters necessary for the operation of these additional NRMs. The additional authorities requested and the EFC figures are in the paper on Part 2 of the agenda.

1.2 On 21 January 2016, the Finance and Policy Committee considered a similar paper, which recommended the purchase of 30 NRMs. The Committee requested an option for the purchase of a further 165 NRMs to also be considered by the Board. This has been addressed in the recommendations in this paper and is considered further in the paper on Part 2 of the agenda.

1.3 A paper is included on Part 2 of the agenda, which contains exempt supplemental information. The information is exempt by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

2 Recommendations

2.1 The Board is asked to note the paper and the related paper on Part 2 of the agenda and:

(a) approve Project Authority for the purchase of up to 195 additional New Routemasters up to the sum set out in the paper on Part 2 of the agenda; and

(b) approve unbudgeted Financial and Procurement Authority for up to 195 New Routemasters, iBus and ticketing equipment, mid-life refurbishment and related matters, at the figure set out in the paper on Part 2 of the agenda;

(c) authorise the TfL Officers and the Subsidiaries (as described in paragraph 2.2 below) to finalise:

(i) the timing of the order for new buses and the number of buses per order; and

(ii) the terms on which the New Routemasters and ancillary requirements are to be supplied;

(d) authorise the agreement and execution (whether by deed or otherwise on behalf of TfL or any Subsidiary (as appropriate) any documentation to be entered into in connection with the completion and implementation of any order for buses made pursuant to the approvals given in paragraphs 2.1(a), (b) and (c) above (an Order) and any of the matters referred to in them (including, without limitation, all agreements, deeds, guarantees, indemnities, announcements, notices, contracts, certificates, variations, letters or other documents); and

(e) authorise TfL Officers and Subsidiaries to do all such other things as they consider necessary or desirable to facilitate the execution and implementation of any Order and the matters referred to in them.

2.2 The following Officers and Subsidiaries shall have delegated authority:

(a) TfL Officers: the Commissioner, Managing Director Finance, Managing Director Surface Transport, General Counsel; and

(b) Subsidiaries: Subsidiaries of TfL including Transport Trading Limited and any other subsidiary (whether existing presently or to be formed) of Transport Trading Limited and any of the directors of the relevant company shall be authorised to act for and on behalf of that company.

3 Background

3.1 Wrightbus Limited (Wrightbus) was awarded a contract to supply up to 1,000 New Routemaster (NRMs) vehicles (including initial prototypes) on 23 December 2009, following a competitive process.

3.2 Following the introduction of eight trial NRMs into service in 2012, in September 2012 the Board agreed to purchase 600 NRMs, with the final bus due to be delivered by March 2016.

3.3 On 5 November 2014, the Board granted additional Project and Procurement Authorities to purchase an additional 200 NRMs, to take the cumulative total to 808 NRMs by mid 2016, although this was subsequently reduced to 805 in line with the contract provisions to match the forecasted route allocation. The production of these vehicles is almost complete and Wrightbus is due to start closing down the production lines.

4 Options

4.1 An order for 30 NRMs would be required to enable Wrightbus to maintain the operation of one of the two current production lines, which keeps open a more cost effective option for purchasing additional vehicles. If both production lines were to close, it would increase the cost of any subsequent order due to the need to remobilise production. The paper included in Part 2 of the agenda sets out further details on the pricing for up to a further 165 vehicles.

4.2 Additional buses would include adjustments made to the original design, including upper and lower deck opening windows to improve ventilation and alterations to the rear door (modifications to the mechanism, voice warning and markings to improve safety). Buses would also include Microvast batteries, with improved operational performance over the original types.

5 Views of the Finance and Policy Committee

5.1 On 21 January 2016, the Finance and Policy Committee considered a similar paper. The Committee requested an option for the purchase of up to a further 195 NRMs be submitted to the Board for approval. This has been addressed in the recommendations in this paper and is considered further in the paper on Part 2 of the agenda.

List of appendices to this paper:

Exempt supplementary information is included in a paper on Part 2 of the agenda.

List of Background Papers:

Mayor's 2020 Vision

Contact Officer: Leon Daniels, Managing Director, Surface Transport
Number: [redacted]
Email: [redacted]fl.gov.uk

Board

Date: 3 February 2016

Item: New Routemasters

This paper will be considered in private

Subject to the decision of the Board, this paper is exempt and is therefore not for publication to the public or press by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL.

1 Summary

1.1 This paper contains supplementary information to the New Routemasters (NRMs) paper being considered on Part 1 of the agenda.

1.2 On 21 January 2016, the Finance and Policy Committee considered a similar paper, which recommended the purchase of 30 NRMs. The Committee requested an option for the purchase of a further 165 NRMs to also be considered by the Board. This has been addressed in the recommendations in the paper on Part 1 of the agenda and further information on that option will be provided prior to the meeting as analysis is ongoing.

2 Financial Implications

ST-PJ366	195 New Routemasters				
	Existing Financial Authority	EFC	Existing Project Authority	Additional Authority Requested	Total Project Authority
Project	£290.8m	£354.2m	£290.8m	£63.4m	£354.2m
Operation	£13.3m	£24.7m	n/a	n/a	n/a
Total	£304.1m	£378.8m			

2.1 The additional Project Authority requested is £63.4m of unbudgeted expenditure for up to 195 buses. This in an increase to the current project scope, increasing total Project Authority to £354.2m. If approval is given for 30 buses, the additional Project Authority requested is £9.8m of unbudgeted expenditure for the buses, increasing total Project Authority to £300.6m.

2.2 Financial and Procurement Authority of a further £11.4m is also requested for iBus screens, ticket readers, additional operator costs (including CCTV and telematics and fuelling equipment), early termination of existing vehicle leases and provision for a mid-life refurbishment making a total of £74.7m for up to 195 buses. This takes the total Financial Authority from £304m to £378.8m. If approval is given for 30 buses, the additional Financial and Procurement Authority requested for these items is £1.7m, taking the total Financial Authority from £304m to £315.6m.

2.3 TfL officers have secured an improved unit cost from Wrightbus together with improvements in the vehicle specification. Vehicle specifications for the additional NRMs will be the same as the additional 200 agreed in November 2014, with the addition of opening windows on both decks. Even though a reduced unit price has been offered negotiations are still ongoing with regard to this and other aspects of the requirements.

2.4 By placing an order now, TfL will secure the headline price of no more than £325k per vehicle, which represents a discount compared to the £349.5k per vehicle for buses 605-805. This price will only be available if a continuous production line can be maintained. As part of the commercial agreement, a discount on spare parts and resolution of other outstanding issues is also currently being explored.

2.5 The current 2014 TfL Business Plan has no funding for further purchases, beyond the 805 currently committed.

Costs and Funding	Current authority	2016/17	17/18-31/32	Total 16/17-21/22	Total 16/17-31/32	EFC
Capital cost purchase of NRMs (£325k per bus)		(63.4)	0.0	(63.4)	(63.4)	
Project Authority	(290.8)	(63.4)	0.0	(63.4)	(63.4)	(354.2)
Ticketing and iBus equipment	(5.7)	(2.6)	0.0	(2.6)	(2.6)	(8.3)
Operator additional costs (£7k per bus)	n/a	(1.4)	0.0	(1.4)	(1.4)	(1.4)
Cascade write-off costs (average £20k per bus)	(2.0)	(3.9)	0.0	(3.9)	(3.9)	(5.9)
Mid life refurbishment costs (£18k per bus)	(5.6)	0.0	(3.5)	0.0	(3.5)	(9.1)
Total Procurement and Financial Authority (inc Project	(304.1)	(7.8)	(3.5)	(71.2)	(74.7)	(378.8)
Battery renewal (£26k per bus, every 3 years)	n/a	0.0	(20.3)	(5.1)	(20.3)	n/a
Other vehicle running costs (£8k per bus pa)	n/a	0.0	(27.7)	(7.5)	(27.7)	n/a
Ownership savings (£32k per bus pa) - 1st term	n/a	0.0	41.3	30.2	41.3	n/a
Ownership savings (£15k per bus pa) - remaining life	n/a	0.0	32.6	0.0	32.6	n/a
Hybrids premium savings (£5k-10.4k p.a. per bus)	n/a	0.0	13.2	10.8	13.2	n/a
Net Savings to Bus oprtating Contracts	n/a	0.0	39.2	28.4	39.2	n/a
Estimated Final Cost	n/a	(71.2)	35.6	(42.8)	(35.6)	n/a

Table 1: cost breakdown for 195 additional New Routemasters

List of appendices to this paper:

Appendix 1: Detailed breakdown of costs and phasing

Contact Officer: Leon Daniels, Managing Director, Surface Transport
Number: [redacted]
Email: [redacted]fl.gov.uk

Appendix 1

Appendix 1 - Detailed breakdown of costs and phasing

195 Additional NRM costs (incl inflation)	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	Total to 31/32	Total to 21/22
Purchase (£325k per bus)	(63.4)																(63.4)	(63.4)
Project Authority	(63.4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(63.4)	(63.4)
Ticketing and iBus equipment	(2.6)																(2.6)	(2.6)
Operator additional costs (£7k per bus)	(1.4)																(1.4)	(1.4)
Cascade write-off costs (average £20k per bus)	(3.9)																(3.9)	(3.9)
Mid life refurbishment costs (£18k per bus)								(3.5)									(3.5)	0.0
Total Procurement and Financial Authority	(7.8)	0.0	0.0	0.0	0.0	0.0	0.0	(3.5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(11.3)	(7.8)
Battery renewal (£26k per bus, every 3 years)				(5.1)			(5.1)			(5.1)			(5.1)				(20.3)	(5.1)
Other vehicle running costs (£8k per bus pa)		(0.8)	(1.6)	(1.7)	(1.7)	(1.8)	(1.8)	(1.9)	(2.0)	(2.0)	(2.1)	(2.2)	(2.2)	(2.3)	(2.4)	(1.2)	(27.7)	(7.5)
Ownership savings (£32k per bus pa) - 1st term		3.1	6.4	6.7	6.9	7.1	7.3	3.8									41.3	30.2
Ownership savings (£15k per bus pa) - remaining life								1.8	3.7	3.8	3.9	4.1	4.2	4.3	4.5	2.3	32.6	0.0
Hybrids premium savings (£5k-10.4k p.a. per bus)		2.0	2.1	2.2	2.2	2.3	2.4	0.0									13.2	10.8
Net Savings to Bus operating Contracts	0.0	4.4	6.9	2.1	7.4	7.6	2.8	3.7	1.7	(3.3)	1.8	1.9	(3.1)	2.0	2.1	1.1	39.2	28.4
Estimated Final Costs	(71.2)	4.4	6.9	2.1	7.4	7.6	2.8	0.2	1.7	(3.3)	1.8	1.9	(3.1)	2.0	2.1	1.1	(35.6)	(42.6)

Board

Date: **3 February 2016**

Item: **New Routemasters – Supplementary Information**

This paper will be considered in private

Subject to the decision of the Board, this paper is exempt and is therefore not for publication to the public or press by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL.

1 Summary

1.1 This paper contains supplementary information to the New Routemasters paper being considered on Parts 1 and 2 of the agenda to inform the Board's decision.

2 Vehicles ordered to date

2.1 Wrightbus was awarded a contract to supply up to 1,000 NRM vehicles (including initial prototypes) on 23 December 2009, following a competitive process.

2.2 Following the introduction of eight trial NRMs into service in 2012, in September 2012 the Board agreed to purchase 600 NRMs, with the final bus due to be delivered by March 2016.

2.3 On 5 November 2014, the Board approved the case for additional buses and granted additional project and procurement authorities to purchase an additional 200 NRMs, to take the cumulative total to 808 NRMs by mid-2016, although this was subsequently reduced to 805 in line with the contract provisions to match the expected route allocation. The production of these vehicles is almost complete and Wrightbus is due to start closing down the production lines.

2.4 This further order for additional vehicles would complete the original contract with Wrightbus.

3 Commercial proposition

3.1 Further to paragraph 2.4 in the paper on Part 2 of the agenda, Wrightbus has offered a new purchase price of £319,000 per vehicle, which although still subject to negotiation, compares favourably with the £349,500 paid for the last 200 vehicles, approved by the Board in November 2014. This reduces the total

capital cost to £62.2m from the £63.4m included in table 1 in the paper (Agenda Item 21) on Part 2 of the agenda (hereafter referred to as 'table 1').

3.2 This purchase price excludes mid-life refurbishments and other additional costs, including CCTV and telematics, capital items such as additional ticket readers and a second iBus screen, and other costs such as parts and labour for additional maintenance, and the additional costs of cleaning the interior of the bus. These items are costed in table 1.

4 Outline case for additional 195 New Routemasters

4.1 NRMs are becoming a globally recognisable replacement for their iconic predecessor and have been used to promote UK technology, manufacturing and design excellence abroad.

4.2 NRMs are helping to improve customer satisfaction. In 2014, customer satisfaction for passengers on NRMs was on average three points higher than for standard double deck buses (87 compared to 84), including a three point improvement in both 'vehicle average' and 'journey average'.

4.3 The order of an additional 195 NRMs will complete the original maximum contract with Wrightbus of up to 1,000 vehicles. On completion of the order TfL would have a licence from Wrightbus in relevant intellectual property to allow any manufacturer to produce identical designs of the NRM for use in London, but which incorporates their latest engine and hybrid technology, thereby ensuring that any further expansion of this iconic fleet delivers maximum environmental benefits. TfL already has the IPR in the overall "look and feel" of the NRM and in specific interior and exterior features and the IPR to be able to produce and sell NRM-related merchandise.

Operating costs

4.4 The risk of ownership of buses is normally transferred to the operator, who may then transfer it to a leasing company. The cost of ownership is paid by TfL as a revenue item through the periodic bus contract payments. This cost will be excluded from contract bids for routes operating with NRM vehicles, as per table 1.

4.5 Additional costs are expected, due to replacement of the Microvast batteries every three years. As part of the ongoing renegotiation, Wrightbus has offered, subject to the order being increased to the full 1,000 NRMs, to reduce this cost by around 20 per cent of that included in table 1. This would also apply to the existing order of 805 buses, giving an additional saving of around £7m at 2015/16 prices, not shown in table 1.

4.6 Fare evasion varies considerably by area of London. However, as with other routes operating with open boarding, this fare evasion risk will be managed accordingly within TfL's existing contingent of Revenue Protection Inspectors and their effective tasking.

Economic and social benefits

4.7 Although at Euro V there was and is a fuel saving for NRM, due to market stimulation driven by the original NRM, engine and hybrid technology has progressed at such a rate that all Euro VI hybrid technology, including the NRM, emit significantly reduced emissions of NOx and PM compared with Euro V, with all buses operating with similar fuel consumption. NRMs can still be seen as a market leader and introduction of a further 195 vehicles would lead to the oldest and most polluting buses in the fleet being withdrawn.

Delivery

4.8 Delivery of the additional 195 vehicles would be through one production line, and be complete by January 2018.

Contact Officer: Leon Daniels, Managing Director, Surface Transport
Number: [redacted]
Email: [redacted]tfl.gov.uk

Appendix 2 MOU

COMMERCIALLY CONFIDENTIAL: TfL RESTRICTED

Subject to Contract

Memorandum of Understanding: New Routemaster

This memorandum records the outcome of a meeting between London Bus Services Limited and Wrightbus Limited on 14 January 2016 at the premises of Wrightbus Limited and subsequent discussions, actions and correspondence.

1. London Bus Services Limited (LBSL) has expressed interest in acquiring 195 vehicles as final production vehicles taking the total quantity of New Routemaster vehicles (NRM) ordered to 1,000 (the Final Production Vehicles) to the design of the NRM amended as outlined in this document through a variation to Contract Number 4600002359 for the Design and Supply and Maintenance of Double Decker Bus vehicles (the Contract), between LBSL and Wrightbus Limited (Wrightbus) and issue of a Purchase Order.
2. A Variation Agreement dated 27 March 2013 and associated Purchase Order were issued providing for the supply of 600 vehicles.
3. A further Variation Agreement dated 23 December 2014 and associated Purchase Order were issued providing for the supply of 200 vehicles (the Additional Vehicles).
4. LBSL issued notification to Wrightbus on 28 September 2015 reducing the quantity of Additional Vehicles by 4.
5. Changes to the contract have been agreed in Contract Change Notices (CCN) numbered CCN 1 through to CCN 18.
6. Wrightbus is willing and able to supply 195 Final Production Vehicles to the design of the NRM (as amended by previous variations and CCNs and as outlined in this document) through a variation to the Contract and Purchase Order from LBSL.
7. Any variation to the Contract in respect of the Final Production Vehicles is subject to discussion and approval though the internal governance arrangements of LBSL and Transport for London which is currently expected to be completed in February 2016; this memorandum is not, therefore, legally binding on either party.
8. It is agreed that certain terms of the Contract need to be amended to take account of changing circumstances and reflect this proposed order.
9. LBSL is also seeking to incorporate some changes to the Contract to take account of operational performance and user experience of the Vehicles.
10. Wrightbus is willing and able to incorporate changes to the Contract to take account of operational performance and user experience of the Vehicles
11. This memorandum sets out the principal terms settled to date for the supply of the vehicles already ordered and the Final Production Vehicles and identifies other activities to support the operation of the NRM bus fleet.
12. The Variations implementing the arrangements described in this memorandum will be issued when all relevant matters have been satisfactorily addressed and agreed between the parties.

COMMERCIALLY CONFIDENTIAL: TfL RESTRICTED

Subject to Contract

13. The parties agree to act in good faith and diligently pursue all matters to enable completion of variations to the Contract and Purchase Order(s) in a timely manner.

14. For the avoidance of doubt the terms of the Contract shall apply unless specifically varied in accordance with its terms.

15. Headings used within this memorandum are for convenience only and shall not be used to construe the meaning of any agreement.

Quantity

16. The current position of vehicles ordered is:
8 Prototype vehicles (subsequently converted to production standard).
600 Vehicles ordered under the initial production order.
200 Vehicles ordered as "Additional Vehicles" subsequently reduced by four (4).
Net total of vehicles ordered is therefore 804.

17. Wrightbus responded to LBSL's letter of 28 September on 12 February 2016 requesting that the reduction in vehicles ordered be reduced to three (3) as Wrightbus have developed and manufactured a shortened version of the NRM for trials in London. This results in a revised total quantity of 805 vehicles (804 standard length and 1 short length). This proposal is acceptable to LBSL.

18. The Purchase Order Quantity of Final Production Vehicles will be 195 vehicles.

19. For the avoidance of doubt Clauses 33 and 34 of the contract will apply in full in respect of any Final Production Vehicles ordered.

Specification

20. Windows

    20.1. The Final Production Vehicles will incorporate all changes to the specification of the NRM agreed in CCNs 1 through to 18 and supply and fitting of up to 6 sliding windows to the upper deck and 3 to the lower deck. Final details are to be confirmed in discussion between Mike Weston and David Barnett and subsequently documented in a CCN (provisionally CCN19).

    20.2. It as agreed that all costings for the window modifications will be on a clear open book basis.

Action: Wrightbus (David Barnett)

21. The Final Production Vehicles shall also include the supply and installation of appropriate wiring for fitment of "foot well cameras" and the option for supply and fitting of such cameras with the ability to collect video images and data through a clear view of the pedal area (including the driver's feet). Camera fitment is to be specified by the relevant operator. Wrightbus will provide a cable run to the Vehicle DVR but it will be the responsibility of the Operator of the vehicle to provide appropriate terminations and processing capability in the DVR to receive video images and data.

COMMERCIALLY CONFIDENTIAL: TfL RESTRICTED

Subject to Contract

22. The initial 30 Final Production Vehicles are to be supplied as Standard length NRM.

23. Further quantities of Final Production Vehicles may be ordered by LBSL as either standard length NRM or short length NRM.

24. Wrightbus are to provide an amended production schedule indicating when LBSL must advise the selection of standard length or short length vehicle to allow Wrightbus to manufacture in accordance with the production schedule.
Action: Wrightbus (David Barnett)

Price, Payment, and Delivery

25. Wrightbus offer in relation to the price of the Final Production Vehicles is:

26. The price of each standard length Final Production Vehicle shall be £319,000 (excluding VAT) fixed for the full quantity including all specification changes noted in this memorandum.

27. LBSL will review the likely usage of short length NRM vehicles and advise Wrightbus of the anticipated proportion of standard and short length NRM to be required in the Final Production order.
Action: LBSL (Mike Weston)

28. Following advice of the anticipated allocation of standard and short length NRM the price for each short length vehicle is to be proposed by Wrightbus taking account of the reduced cost of materials, components and labour arising from the shorter length e.g. fewer seats.
Action: Wrightbus [redacted]

29. Wrightbus shall also reduce the price of the last 100 of the Additional Vehicles by £3,000 (excluding VAT) per vehicle. This reduction in price will be implemented though issue of a credit note by Wrightbus to LBSL each month reflecting the number of vehicles delivered to London. Administrative processes to enact this arrangement are to be confirmed in further discussions but will be based on the process previously developed and used for credits issued for Euro V vehicles delivered in lieu of Euro VI vehicles. In the event that LBSL reduces the order quantity to less than 195 vehicles or terminates the order or contract all credits received by TfL pursuant to this discount arrangement will be reimbursed to Wrightbus in full.

30. Wrightbus shall not be entitled to any increase in price arising from any cause (including but not limited to changes in material prices, labour rates, financing costs, obsolescence, technical change or non-availability of materials or parts) except additional agreed changes in specification requested by LBSL by way of a CCN. In relation to changes in law clause 4.6 in Contract Number 4600002359 shall remain in force.

31. Wrightbus to be responsible for all shipping, insurance and delivery costs to the nominated Production Vehicle Site in London in accordance with clause 15 of the Contract.

COMMERCIALLY CONFIDENTIAL: TfL RESTRICTED

Subject to Contract

32. Payments will be:

    32.1. £255,200 per Vehicle will be invoiced at the point at which each bus has been produced, successfully inspected and is fully ready for delivery.

    32.2. £63,800 per Vehicle will be invoiced following delivery and acceptance ready for service in London.

33. The Production Programme shall be as discussed and provided by Wrightbus on 14 January 2016 (attached as Appendix 1) and as amended pursuant to paragraph 24 of this Memorandum of Understanding. Wrightbus expressly give consent to this Production Programme and delivery arrangements as required by Clause 7.4 of the Contract.

34. The Production Programme may be updated during the course of production at the request of either party but an update shall not be valid unless and until it has been agreed and authorised by a signed CCN.

35. From time to time LBSL will issue instructions for delivery of the Final Production Vehicles as required for conversion of routes to operation by the Final Production Vehicles. The arrangements for supply of the Final Production Vehicles (including Liquidated damages) shall be on the same basis as detailed in the Contract clauses 7A.11, 7A.12, and 7A.13.

36. The provisions of clause 10 of Contract Number 4600002359 shall remain in force and shall not be eligible for change under the variation proposed in this memorandum.

37. Wrightbus shall ensure that at all times it complies with the regulatory requirements for bus certification in the UK. In relation to changes in law clause 4.6 in Contract Number 4600002359 shall remain in force.

38. It is acknowledged that the price per vehicle is fixed without any indexation of price as detailed in this memorandum and therefore the Price Review Board as described in clause 17.13 shall not apply to the Purchase Order for the Final Production Vehicles and operation of the Price Review Board will be suspended until further notice.

39. It is noted that the price for the Final Production Vehicles is significantly lower that that for previous deliveries due to favourable terms being negotiated in the Wrightbus supply chain, proposed production efficiencies and acceptance of reduced margin by Wrightbus. A written explanation of this has been provided by Wrightbus.

Warranty

40. The warranty for the Final Production Vehicles will be increased from two (2) years to three (3) years for the following items as identified in Schedule 1 of the agreement (Specification): whole vehicle plus items b, c, d e and f, excluding batteries. For the avoidance of doubt this arrangement will take precedence over Schedule 7 of the Contract.

COMMERCIALLY CONFIDENTIAL: TfL RESTRICTED

Subject to Contract

Intellectual Property and Royalty payments

41. It is agreed that the intellectual property and royalty provisions in the contract apply equally to standard length and short length NRM vehicles.

42. LBSL is aware that Wrightbus has developed and subsequently sold to third parties a number of two door vehicles that incorporate features of the NRM design. Wrightbus shall, accordance with the terms of the contract, propose to LBSL a Royalty payment reflecting the use of LBSL's Intellectual Property Rights in the design and manufacture of these vehicles.

Action: Wrightbus [redacted]

Other Items discussed and Actions agreed

43. Pedal Confusion

43.1. LBSL wishes to develop a greater understanding of the root causes of "pedal confusion" as a network wide issue for buses operating in London and particularly in modern hybrid drive vehicles with regenerative braking capabilities.

43.2. As a major manufacturer and supplier of buses to London, Wrightbus are similarly interested in obtaining a greater understanding of this.

43.3. As the only substantive fleet of vehicles owned by TfL is the NRM fleet which is designed and manufactured by Wrightbus it was agreed to use the NRM as a case study for an investigation.

43.4. It was agreed that Wrightbus would undertake a programme of research involving an independent third party to investigate the root causes of "pedal confusion" and produce a report which LBSL would have equal rights to and the ability to share with other interested parties. The Terms of reference and report format are to be developed by Wrightbus in conjunction with LBSL and are subject to agreement by LBSL.

43.5. LBSL provided a copy of a previous report that was prepared for LBSL which considered cab design issues.

43.6. It was agreed in principle that Wrightbus would manage and fund this research with input from LBSL and other interested parties. Costs are to be investigated and a proposal provided to LBSL. In the event that the costs of the research are regarded by Wrightbus as prohibitive a further discussion will be held with LBSL.

Action: Wrightbus [redacted]

44. Battery Supplies

44.1. LBSL will make arrangements so that LBSL and operators of LBSL owned NRM vehicles will use the Microvast specification batteries to replace any failed batteries unless and until a change of battery specification and/ or manufacturer for NRM batteries has been agreed by issue and agreement of a CCN.

44.2. Wrightbus will supply and fit replacement batteries for all 1,000 NRM vehicles to LBSL and bus operators on the basis of cost price to

COMMERCIALLY CONFIDENTIAL: TfL RESTRICTED

Subject to Contract

Wrightbus plus 12.5% (to cover ordering storage and fitting). The pricing of the batteries will be on an open book basis and Wrightbus will use its best efforts to maintain the cost for the battery at the lowest commercially viable price.

44.3. As a reference point the current cost to Wrightbus of a battery is £17,500 delivered to the UK resulting in the price to LBSL and operators for a battery being £20,000 (excluding VAT).

44.4. The price for the first 500 battery replacements will be capped at a maximum price of £20,000 (excluding VAT) unless Microvast batteries cease to be available for reasons outside the reasonable control of Wrightbus.

44.5. The maximum price for additional battery replacements (to the current Microvast battery specification for NRM) for quantities from 501 to 2,000 will be capped at £25,000 (including cost to Wrightbus and allowance to cover ordering storage and fitting).

44.6. If Microvast cease trading or cease to honour their supply agreement for reasons outside the reasonable control of Wrightbus and a like for like replacement battery is not available, then the battery supply and fitment price (including conversion costs) will be reviewed by both parties on an open book basis to achieve the lowest commercially viable price.

44.7. It is the intention that this arrangement will be in place for two battery replacement cycles (2,000 vehicles).

44.8. The parties may at any time agree to carry out a joint review(s) of battery technology or opportunities for improvement in battery performance. Terms of reference for such review(s) are to be proposed by Wrightbus.

Action: Wrightbus [redacted]

44.9. LBSL have reviewed the Procurement law implications of this proposed arrangement and confirm that exclusivity of battery supply cannot be given.

45. Spares Pricing

45.1. Following questions from operators and LBSL suggesting that NRM spares are significantly higher priced that other bus types Wrightbus presented an analysis that showed that this is not the case. The summary information has been provided to LBSL.

45.2. The analysis did not accord with information provided to LBSL and questions were raised regarding the causes of this including the potential that operators were not buying spares direct from Wrightbus and that some parts descriptions are not consistent. Wrightbus are not willing (and do not feel it is necessary) to offer alternative pricing at this time.

COMMERCIALLY CONFIDENTIAL: TfL RESTRICTED

Subject to Contract

45.3. It was agreed that a longer term study should be undertaken to explore underlying causes of the apparent discrepancies and opportunities to develop a lower cost spares model for NRM.
Action: LBSL [redacted] Mike Weston)

46. Application of credit agreed under CCN16

46.1. The parties agree that an amount of the funds identified in CCN16 (£200,000 excluding VAT) have been properly applied to meet the cost of the door modifications agreed under CCN17.

46.2. The parties confirm their continued commitment to using the remaining funds identified in CCN 16 for the upgrade of NRM vehicles and that any remaining amount above that applied to the modifications carried out under CCN17 will be held by Wrightbus for use as directed by LBSL in further upgrade or modifications to NRM vehicles (either already produced or to be produced in the future)

Signed on behalf of LBSL	Signed on behalf of Wrightbus
[redacted]	[redacted]
Name: Mike Weston	Name: [redacted]
Date: 25th Feb 2016	Date: 25th Feb 2016

COMMERCIALLY CONFIDENTIAL: TfL RESTRICTED

Subject to Contract

Appendix 1 to Memorandum of Understanding:
Production Schedule excluding Prototype Vehicles

		600 Bus Contract	800 Bus Contract	CCN-16	Proposed Delivery
2013	Jan-13	0	0	0	0
	Feb-13	7	7	7	7
	Mar-13	16	16	16	16
	Apr-13	20	20	20	20
	May-13	28	28	28	28
	Jun-13	38	38	38	38
	Jul-13	48	48	48	48
	Aug-13	63	63	63	63
	Sep-13	80	80	80	80
	Oct-13	96	96	96	96
	Nov-13	112	112	112	112
	Dec-13	127	127	127	127
2014	Jan-14	147	147	147	147
	Feb-14	173	173	173	173
	Mar-14	199	199	199	199
	Apr-14	221	221	221	221
	May-14	247	247	247	247
	Jun-14	271	271	271	271
	Jul-14	283	283	283	283
	Aug-14	301	307	307	307
	Sep-14	325	331	331	331
	Oct-14	349	355	355	355
	Nov-14	373	379	379	379
	Dec-14	397	397	397	397
2015	Jan-15	415	421	421	421
	Feb-15	439	445	445	445
	Mar-15	463	469	469	469
	Apr-15	487	493	493	493
	May-15	499	517	517	517
	Jun-15	511	541	541	541
	Jul-15	519	553	553	553
	Aug-15	530	585	577	577
	Sep-15	544	617	601	601
	Oct-15	556	649	625	625
	Nov-15	569	681	649	649
	Dec-15	581	701	667	667
	Jan-16	593	736	691	691
	Feb-16	600	768	715	715
	Mar-16		800	739	739
	Apr-16			763	763
2016	May-16			787	787
	Jun-16			800	811
	Jul-16				823
	Aug-16				839
	Sep-16				855
	Oct-16				871
	Nov-16				887
	Dec-16				903
	Jan-17				919
	Feb-17				935
	Mar-17				951
	Apr-17				967
2017	May-17				983
	Jun-17				992
	Jul-17				
	Aug-17				